### **TPI Aspen Forum Roundup**

Your guide to the 2021 Aspen Forum



#### **About This Year's Forum**

This year's TPI Aspen Forum looked a lot different from past Forums, but we were pleased to offer a packed schedule in a safe environment.

We made health safety a priority by requiring all attendees be vaccinated, have a negative COVID test, and wear masks indoors, as well as holding meals and working groups outside. Safety precautions went off without a hitch, and guests were still able to enjoy great programming and those magical Aspen views. To relive the experience, explore this flyer.

### **SAVE THE DATE!**

TPI ASPEN FORUM 2022

**AUGUST 14-16** 

www.tpiaspenforum.tech/register



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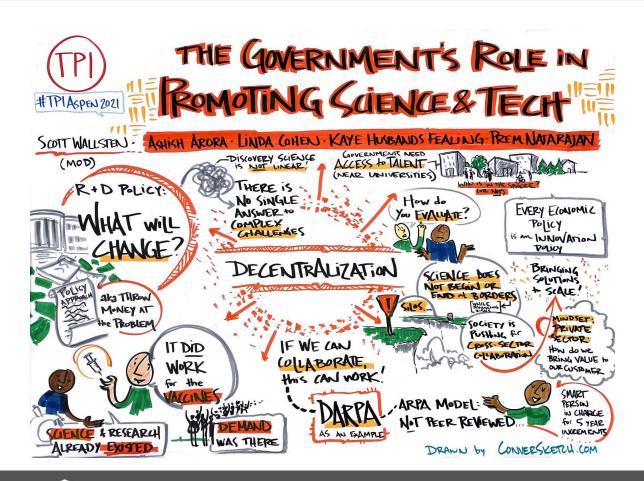
Our roundup features 3 key takeaways from each discussion, along with corresponding clips from our speakers. If you'd like to navigate to a specific panel, simply click its title below.

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# Panel Summaries: 3 Key Takeaways from Each



### The Government's Role in Promoting Science and Technology





# HOW IS TECH RESHAPING THE POST-COVID WORLD?

### Panel: The Government's Role in Promoting Science and Technology



Ashish Arora Senior Associate Dean for Strategy and Rex D. Adams Professor of Business Administration, Fugua School of Business, Duke University



Linda Cohen Professor of Economics and Law, University of California, Irvine School of Law



Kaye Husbands Fealing Dean, Ivan Allen College of Liberal Arts, Georgia Institute of Technology



Prem Natarajan Vice President, Alexa Al and Head of Natural Language Understanding, Amazon



Scott Wallsten (moderator)

President and Senior Fellow,

Technology Policy Institute

### The Government's Role in Promoting Science and Technology

Panelists: Ashish Arora, Linda Cohen, Kaye Husbands Fealing, Prem Natarajan, Scott Wallsten (moderator)

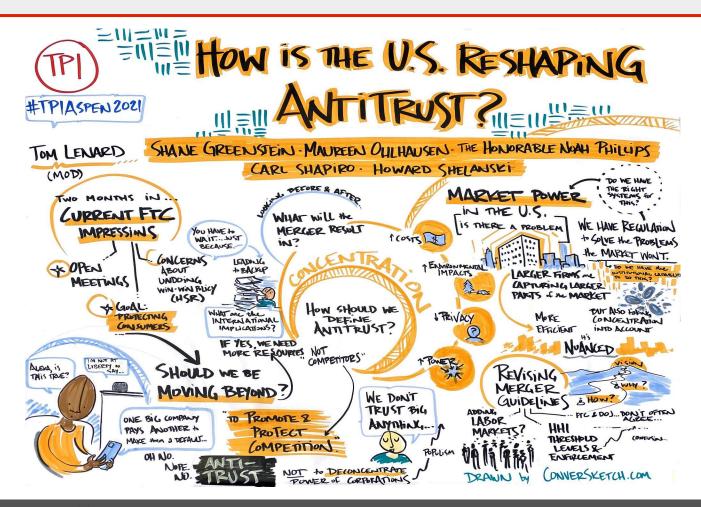
- 1. Over the past 50 years, S&T research has moved from being concentrated in individual, large labs to a more decentralized approach with more collaboration. This change appears to have been good for innovation in areas like pharmaceuticals and information technology, but less good for innovation in areas like materials and energy, which have lagged, relatively speaking.
- 2. Some government agencies have made progress in creating within-agency, cross-area collaborations (ARPA-E is one example), but cross-agency collaboration remains rare. That is, government has successfully worked to break down barriers to within-agency silos, but not cross-agency silos.
- 3. Energy research has historically suffered, as each administration is reluctant to continue research started by previous administrations.







### **How is the US Reshaping Antitrust?**





# HOW IS TECH RESHAPING THE POST-COVID WORLD?

### Panel: How is the U.S. Reshaping Antitrust?



Shane Greenstein Martin Marshall Professor of Business Administration, Harvard Business School



Maureen Ohlhausen
Partner and Co-chair, Antitrust & Competition
Law Practice Group. Baker Botts



Carl Shapiro Professor, Haas School of Business, University of California at Berkeley



Noah Phillips Commissioner, Federal Trade Commission



Howard Shelanski Professor of Law, Georgetown University and Partner, Davis, Polk & Wardwell



Thomas Lenard (moderator) Senior Fellow and President Emeritus, Technology Policy Institute

### **How is the US Reshaping Antitrust?**

Panelists: Shane Greenstein, Maureen Ohlhausen, Noah Philips, Carl Shapiro, Howard Shelanski, Tom Lenard

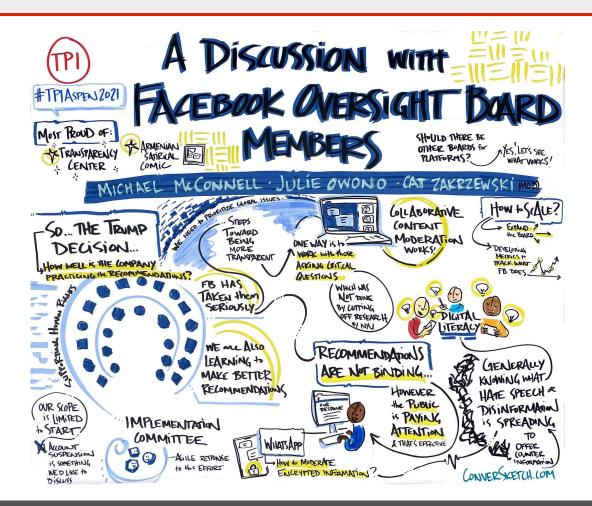
- 1. Perception (true or not) that antitrust enforcement has been too permissive and allowed some companies to become too big and industries too concentrated has led to a populist movement that wants to make antitrust more strict.
- 2. Antitrust analysis could, and some reasonably argue should, explicitly take into account more than price effects of mergers, like effects of labor markets, the environment, and political influence.
- 3. Antitrust is not the cure for all of society's ills. Antitrust is about promoting and protecting competition. Considering a wider range of potential merger effects might be useful, but it should be done carefully. Such a move risks turning antitrust agencies into general regulators, requiring them to make tradeoffs among objectives for which they are unqualified.







### A Discussion with the Facebook Oversight Board





# HOW IS TECH RESHAPING THE POST-COVID WORLD?

#### A Discussion with Facebook Oversight Board Members



Michael McConnell Co-Chair, Facebook Oversight Board



Julie Owono Member, Facebook Oversight Board, Executive Director, Internet Without Borders and Fellow. Digital Civil Society



Cat Zakrzewski (moderator)
Technology Policy Reporter, The Washington Post

### A Discussion with the Facebook Oversight Board

Participants: Michael McConnell, Julie Owono, Cat Zakrzewski

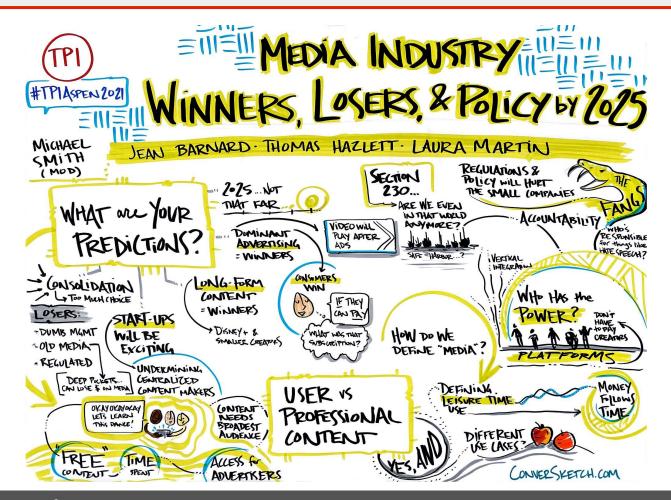
- 1. Making recommendations is turning out to be the most important contribution of the Board.
- 2. The Board is helping Facebook figure out how to implement policies and recommendations consistently across services as well as create transparent rules and processes regarding actions like account suspensions..
- 3. The Board is developing metrics to measure its success and plans to release a year-end report showing the results.







### Media Industry Winners, Losers, and Policy by 2025





# HOW IS TECH RESHAPING THE POST-COVID WORLD?

### Media Industry Winners, Losers, and Policy by 2025



Jean Barnard Portfolio Manager and Director of Research, Kennedy Capital Management, Inc.



Tom Hazlett

Hugh H. Macaulay Endowed Professor of
Economics in the John E. Walker Department of
Economics, Clemson University



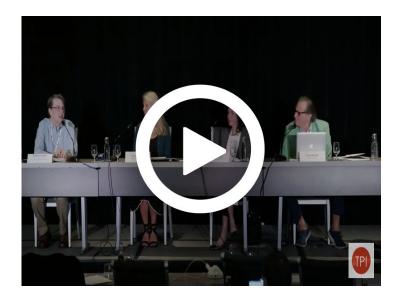
Laura Martin Managing Director, Entertainment, Cable and Media, Needham & Company LLC

### Media Industry Winners, Losers, and Policy by 2025

Panelists: Jean Barnard, Tom Hazlett, Laura Martin, Michael Smith

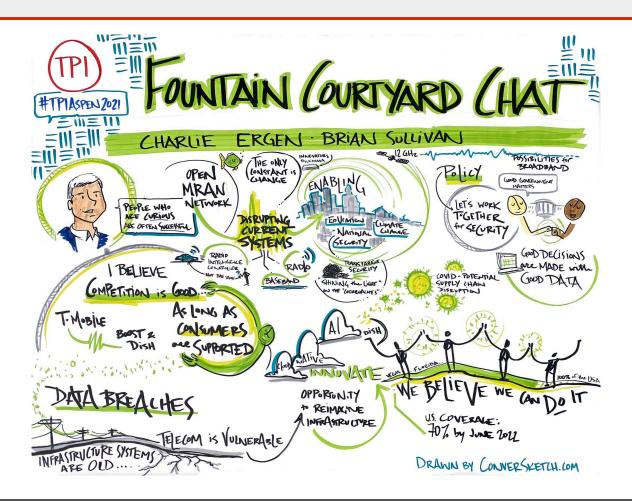
- 1. Legacy media outlets are at a high risk of being permanently left behind by newer entrants due to the shifting viewing patterns of consumers. Apple and Amazon are well positioned to thrive going forward given their distribution capabilities and deep pockets.
- 2. Content is king, and platforms have a distinct advantage since they don't have to pay their content creators. People are willing to trade intellectual property for likes and comments, which helps the platforms. Network effects act as a moat that can protect platforms from competition. Enticing users to break from network effects requires new and compelling media.
- 3. New regulatory measures to govern the space are unlikely. Allowing the market to work is the best course of action because the government is typically slow to react and tends to regulate things that happened in the past as opposed to taking a forward looking view. The big companies competing with one another will be able to outsmart the government and impose costs to entry, making the impacts of legislation negligible.







### Fireside Keynote: Charlie Ergen





# HOW IS TECH RESHAPING THE POST-COVID WORLD?

### FIRESIDE KEYNOTE



Charlie Ergen Co-founder and Chairman of the Board, DISH Network and EchoStar



Brian Sullivan (moderator) Host, Worldwide Exchange and Senior Correspondent, CNBC

### Fireside Keynote: Charlie Ergen

#### Participants: Charlie Ergen, Brian Sullivan

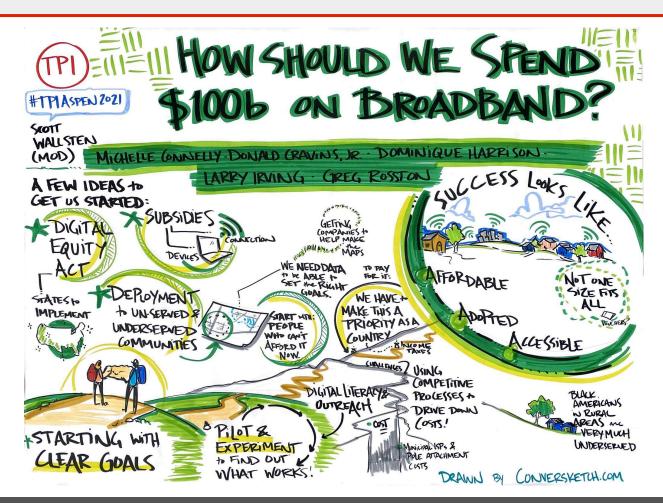
- 1. Dish is launching the nation's first cloud native, Open RAN-based 5G network. Ergen believes the network will prove revolutionary, allowing consumers to tap into 5G and edge computing solutions unavailable in the past.
- 2. Dish aims to cover 20% of the market in the first phase. Dish will launch first in cities with friendly regulatory regimes, ample space, and existing infrastructure
- 3. The company has already purchased enough equipment to complete the buildout's initial phases, insulating them from the effects of shipping disruptions and chip shortages.







### **How Should We Spend \$100 Billion on Broadband?**





# HOW IS TECH RESHAPING THE POST-COVID WORLD?

### Panel: How Should We Spend \$100 Billion on Broadband?



Michelle Connolly

Professor of the Practice of Economics,

Duke University



Donald Cravins Jr.

Executive Vice President and Chief Operating
Officer, National Urban League



Dominique Harrison Director, Technology Policy, Joint Center



Greg Rosston

Director, Public Policy Program, Stanford
University and Gordon Cain Senior Fellow,
Stanford Institute for Economic Policy Research

### **How Should We Spend \$100 Billion on Broadband?**

Panelists: Michelle Connolly, Donald Cravins, Jr., Dominique Harrison, Greg Rosston, Scott Wallsten

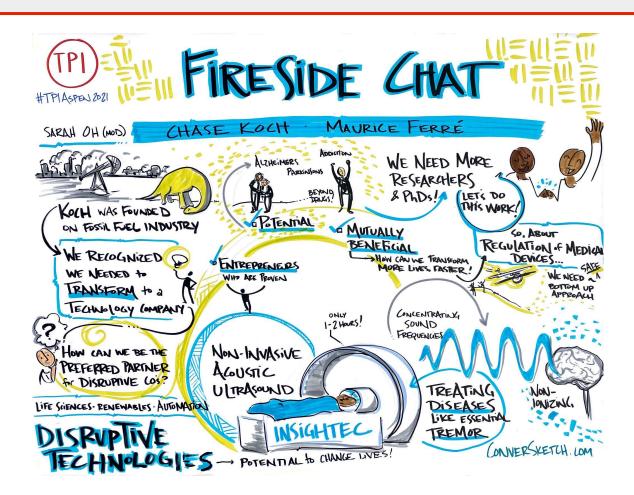
- 1. The pandemic has made connectivity more important than it was previously. Distance learning, telehealth, and working-from-home all became more prominent and are unlikely to revert to pre-pandemic levels.
- 2. The large amount of money likely to be spent on broadband should make it possible to make real dents in digital divides, but "throwing money at the problem" is not sufficient. We need to do it as cost-effectively as possible.
- 3. We should flip the script on our historic allocation of universal service funding: put relatively more emphasis low-income than we have in the past, while still recognizing that access lags in many rural areas and that places with insufficient and low-income access populations may pose specific challenges.







#### Fireside Chat: Chase Koch & Dr. Maurice Ferré





# HOW IS TECH RESHAPING THE POST-COVID WORLD?

### FIRESIDE KEYNOTE



Chase Koch
President, Koch Disruptive Technologies



Maurice Ferré Chief Executive Officer, Insightec



Sarah Oh (moderator) Senior Fellow, Technology Policy Institute

#### Fireside Chat: Chase Koch & Dr. Maurice Ferré

Participants: Chase Koch, Dr. Maurice Ferré, Sarah Oh

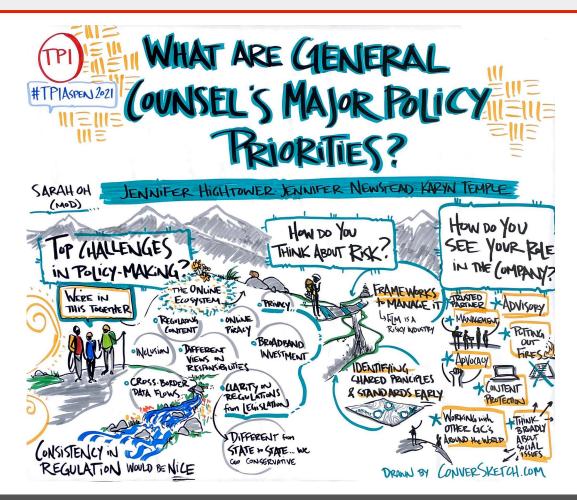
- 1. New medical technologies like focused ultrasound are the results of decades of innovation related to moving surgery from mechanical to electrical. These non-invasive treatments have the potential to treat a large number of diseases whose treatments otherwise have not improved much over time.
- 2. The medical devices industry is heavily regulated under a top-down, one-size-fits-all approach that stifles innovation. A better approach would be more flexible and faster to help promote innovation while still protecting patients.
- 3. Koch industries is transforming itself from an industrial to a technology company and has invested over \$30b so far to do so. KDT is part of that process, and is aimed at "disrupting" Koch's own businesses as well as others.







### What are General Counsels' Major Policy Priorities?





# HOW IS TECH RESHAPING THE POST-COVID WORLD?

#### Panel: What are General Counsels' Major Policy Priorities?



Jennifer Hightower Senior Vice President and General Counsel, Law and Policy, Cox Communications, Inc.



Jennifer Newstead General Council, Facebook



Karyn Temple Senior Executive Vice President and Global General Counsel, Motion Picture Association



Sarah Oh (moderator)
Senior Fellow, Technology Policy Institute

### What are General Counsels' Major Policy Priorities?

Panelists: Jennifer Hightower, Jennifer Newstead, Karyn Temple, Sarah Oh

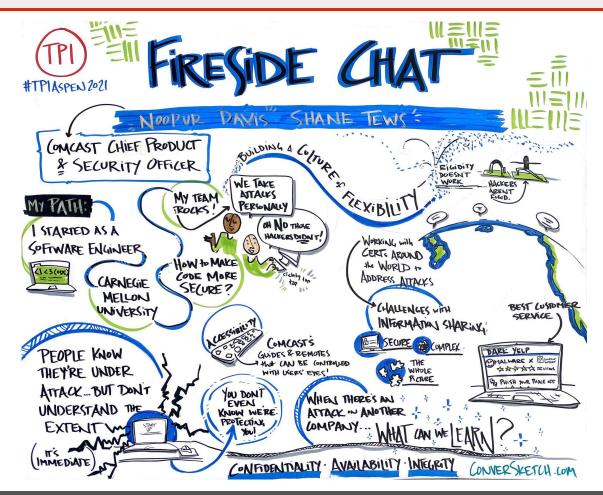
- 1. GCs are navigating major changes in internet and tech regulation. Internet and tech regulation are likely at an inflection point, with active debates simultaneously on privacy, content moderation, and even size of businesses.
- 2. Data localization laws threaten existing business models.
- 3. Companies face legal challenges of dealing with different laws on privacy, data, and other issues across U.S. states and multiple countries. Uniform standards would be preferable.







### Fireside Chat: Noopur Davis





# HOW IS TECH RESHAPING THE POST-COVID WORLD?

### FIRESIDE KEYNOTE



Noopur Davis Executive Vice President, Chief Product and Information Security Officer, Comcast



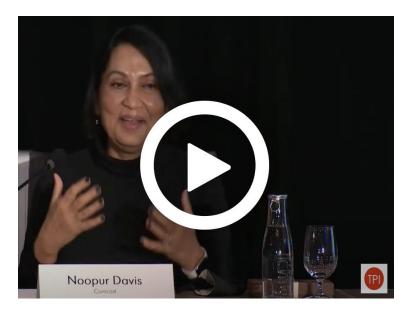
Shane Tews (moderator)
President, Logan Circle Strategies,
and Visiting Fellow, AEI

### Fireside Chat: Noopur Davis

Participants: Noopur Davis, Shane Tews

- 1. The cybersecurity threat landscape changes multiple times per day. Consumers do not realize the extent to which they are under attack. According to a Comcast survey, its customers believe they are subject to 12 attacks per month, when the real number is 104.
- 2. Cybersecurity has always had three pillars: data confidentiality, data integrity and systems availability. Ransomware is particularly worrisome because it affects all three.
- 3. Nation-state infiltration into networks is especially difficult to detect because the intruder's goal usually is not to disrupt, but to learn.







#### **Does China Need the West?**





# HOW IS TECH RESHAPING THE POST-COVID WORLD?

#### Panel: Does China Need the West?



David Gross

Partner, Wiley Rein LLP



Xiaomeng Lu Senior Analyst, Geo-technology Practice, Eurasia Group



Samm Sacks Cyber Policy Fellow, New America



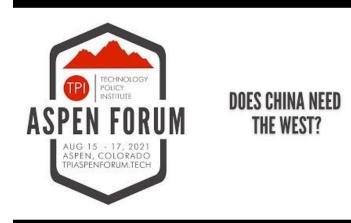
Scott Wallsten (moderator)

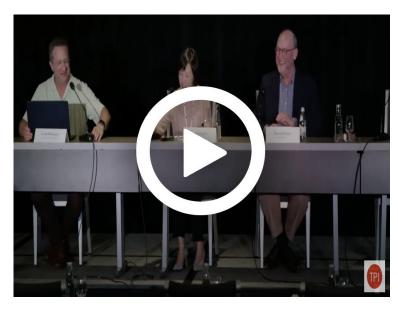
President and Senior Fellow,
Technology Policy Institute

#### **Does China Need the West?**

Panelists: David Gross, Xiaomeng Lu, Samm Sacks, Scott Wallsten

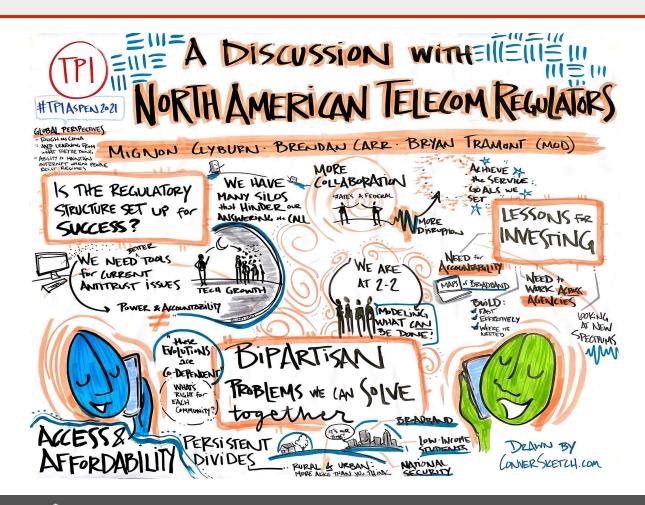
- 1. The Chinese Government (Communist Party) is trying to align Chinese tech companies' priorities with its own. It is using three methods to achieve this goal: Transferring resources from the tech sector to the rest of the economy; defining controls over data; and at least with respect to education companies trying to keep benefits from being concentrated among the elites.
- 2. China's actions towards its tech companies are not new. Even in the 1990s, companies could enter the market and act more or less without government interference. But if the company became very successful, the firm would suddenly find itself being regulated in new ways.
- 3. The Biden Administration's approach to China has been surprising. Rather than lifting tariffs, the Administration is keeping them and even not renewing exemptions that the Trump Administration had granted.
- 4. Bonus takeaway: Read anything by Peter Hessler to better understand China.







### A Discussion with North American Telecom Regulators





## HOW IS TECH RESHAPING THE POST-COVID WORLD?

#### Panel: A Discussion with North American Telecom Regulators



Brendan Carr Commissioner, Federal Communications Commission



Mignon Clyburn
Principal, MLC Strategies LLC



Bryan Tramont (moderator) Managing Partner, Wilkinson Barker Knauer

### A Discussion with North American Telecom Regulators

Participants: Brendan Carr, Mignon Clyburn, and Bryan Tramont

- 1. The current structure of two Democrats and two Republicans on the Commission creates an incentive to reach compromises. The FCC has been productive relative to other parts of the government as a result.
- 2. The \$65 billion the government is currently talking about spending on broadband should be enough to close the digital divide, but we must build accountability into the mechanisms for distributing it.
- 3. Collaborations between the federal government and states can lead to innovative solutions.







### Media Coverage Roundup

Here is just a small sample of media coverage.

The Pros and Cons of State Broadband Grants- Kelcee Griffis, Law360

<u>Facebook General Counsel Tells TPI Internet Regulation Is Overdue</u>- Karl Herchenroeder, Communications Daily

<u>TPI President Wallsten Defends Reverse Auction, Points to Mapping Flaws in Light of RDOF Defaults</u>- Ben Kahn, Broadband Breakfast

<u>Ergen Wants T-Mobile Pact; Notes Smartphone Crunch</u>- Jonathan Make, Communications Daily

<u>RDOF Scrutinized Amid Hopes for Better Broadband Maps</u>- Jonathan Make, Communications Daily

D.C. Needs to Look to the States, Colorado AG Says- Leah Nylen, Politico

Facebook Oversight Board members share disinfo worries- Leah Nylen, Politico

Carr: FCC Party Split Boosts Bipartisanship- Lynn Stanton, TR Daily

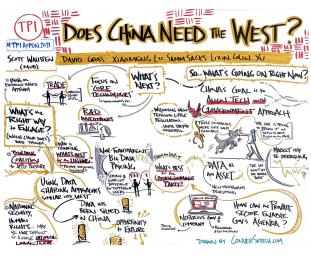
<u>Phillips airs concerns about US Federal Trade Commission priorities under its new leadership</u>- Mike Swift, MLex

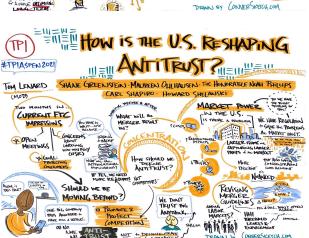
<u>The Facebook Oversight Board's nonbinding recommendations have become its most important work, members said.</u> -Cat Zakrzewski, The Washington Post

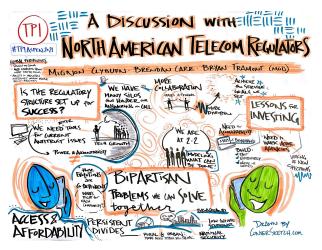
### ConverSketch Graphics

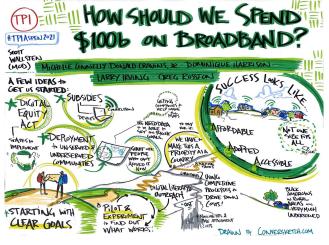
In 2019 and 2021, we worked with Karina Branson at ConverSketch Graphic Recording & Facilitation for graphic sketches of our various sessions. Karina describes her art style as "non-linear" note-taking. The result is an eye-catching summary of each of the panels.



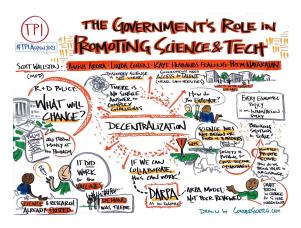


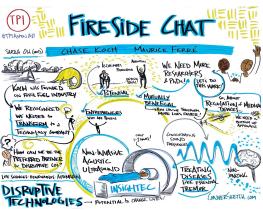


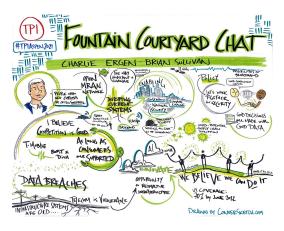


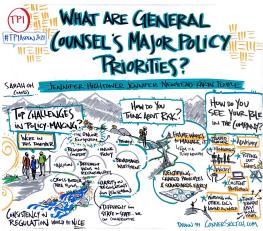


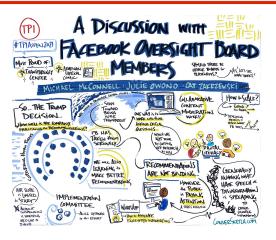
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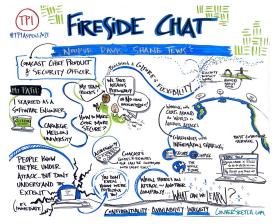


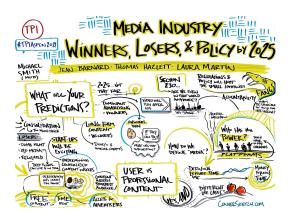












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